

**ABSTRACT OF THE DISCLOSURE**

A process and apparatus for extraction of zinc from a material containing one or more iron oxides and zinc oxide which facilitate heating a composite body of the material and a carbonaceous material in a reduction zone. The reduction zone contains a reducing atmosphere at a temperature insufficient to effect melting of the iron in the material but at a temperature and for a time sufficient to form a reductant from the carbonaceous material and to reduce a predetermined amount of the zinc oxide to zinc vapour. The process and apparatus also facilitate collecting the zinc vapour and cooling it to form liquefied or solid zinc.